ABSTRACT OF THE DISCLOSURE

This invention includes a signal line 17, through which a signal having a desired frequency f_0 passes, formed on a semiconductor substrate 10, and a differential signal line 13 through which a signal in opposite phase to the signal passing through the signal line passes, or which is connected to a ground power supply, the signal line and the differential signal line are formed so as to be substantially in parallel with each other via an insulating layer 15, and an actual wiring length l of the signal line is longer than a wiring length l_0 determined by the following equation

$$l_0 = \sqrt{\frac{\frac{L}{C} + \sqrt{\frac{R^2 + 8\pi^2 f_0^2 L^2}{4\pi^2 f_0^2 C^2}}}{R^2 + 4\pi^2 f_0^2 L^2}}$$

where R represents a resistance component, L represents an inductance component, and C represents a capacitance component, per unit length of the signal line when no differential signal line exists.